

LIPID METABOLISM IN IMMUNE-MEDIATED DISEASES

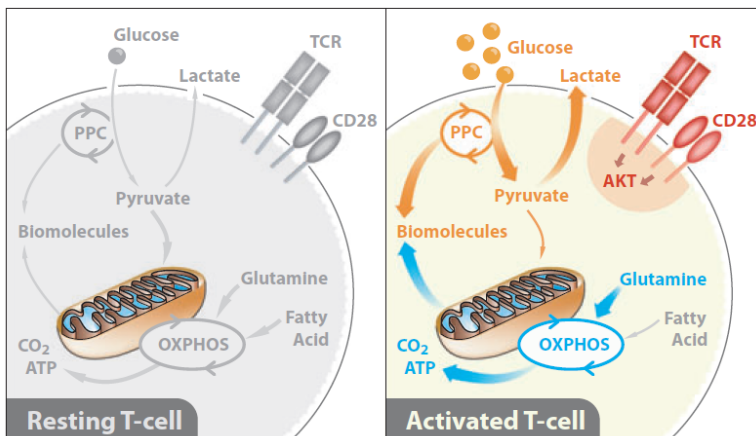
GUEST LECTURE by



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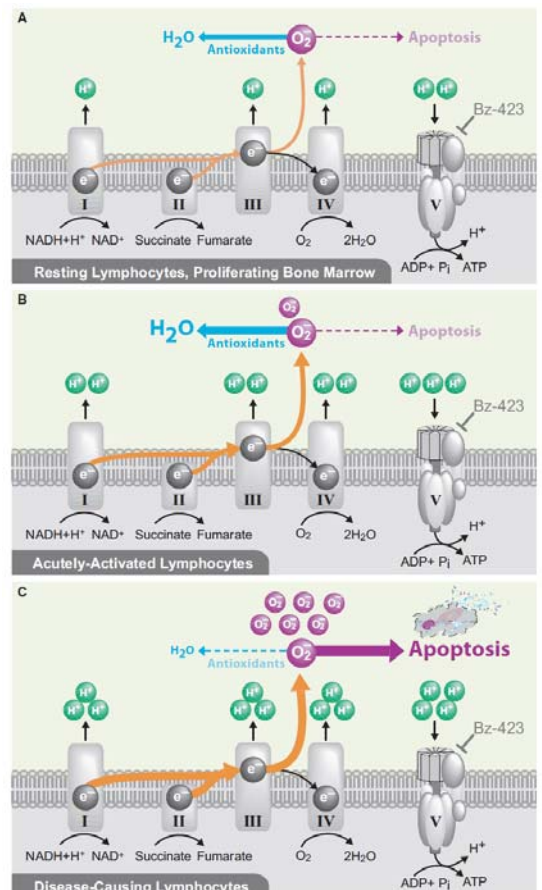
Monday, 24.06.2013
17:00h

Seminar Room 07.11, Preclinics
(Harrachgasse 21, 1st floor), MUG



▲ A simple model of T cell activation.

Mechanism for selective induction of apoptosis in ► disease-causing lymphocytes.



Cell Type	Metabolic Regulators	Principal Metabolic Pathways
CD4 ⁺ activated	Myc, ERR- α , pAKT	Glycolysis, OXPHOS
CD4 ⁺ Th17	HIF-1 α	Glycolysis
CD4 ⁺ Treg	AMPK	Fatty Acid Oxidation
CD8 ⁺ effector	Myc, others?	Glycolysis
CD8 ⁺ memory	AMPK	Fatty Acid Oxidation

▲ Regulation of metabolic pathways in activated T cell subsets.

	OXPHOS	Glycolysis	Antioxidants
CD4 ⁺ CD8 ⁺ unstimulated	++	+	+++
CD8 ⁺ Treg Listeria (6-7 days)	++	++	?
CD4 ⁺ V β 8 ⁺ SEB (2 days)	?	+++++	?
CD4 ⁺ CD8 ⁺ GVHD (7 days)	++++	++	+

▲ Metabolic parameters of T cells activated *in vivo*.

Distinct metabolic programs in activated T cells: opportunities for selective immunomodulation. Wahl et al. (2012) Immunol Rev 249:104-15